



Section 2.0

ENVIRONMENTAL SETTING

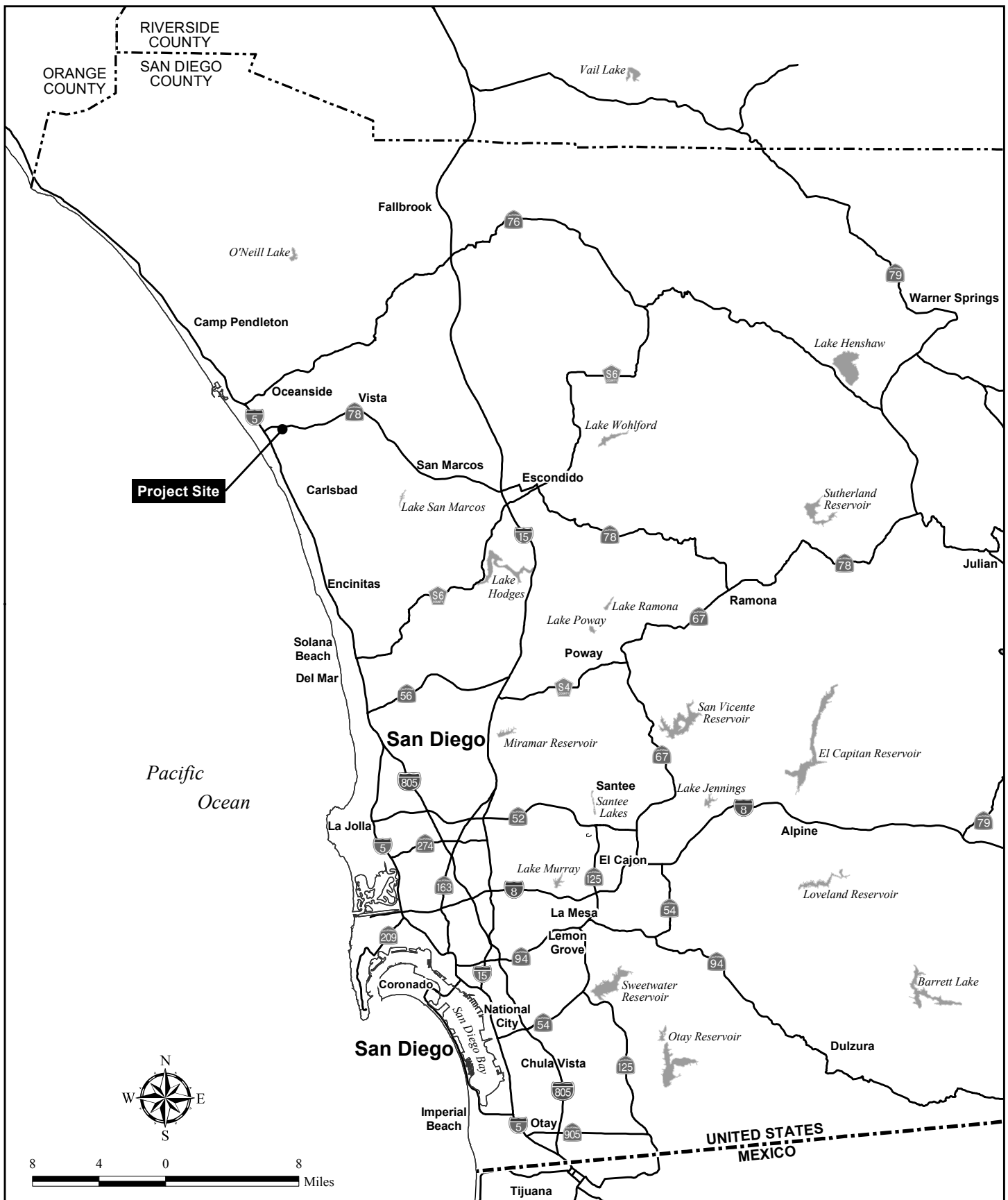


2.0 – ENVIRONMENTAL SETTING

This section provides a general description of the environmental setting for the proposed Westfield Carlsbad project. Information developed for the setting was established at the time of the release of the January 2010 NOP (as updated during report preparation). A more detailed description of the environmental setting as it relates to each of the environmental issues addressed in detail in this EIR is provided in Sections 4.1 through 4.13.

The Westfield Carlsbad Specific Plan (SP) area consists of approximately 77.5 acres of land located in the northern portion of Carlsbad. Located 30 miles north of downtown San Diego, Carlsbad is a city with a population of nearly 107,000 people (City of Carlsbad 2010a). Carlsbad is bordered to the north by Oceanside; to the south by Encinitas; to the east by Vista, San Marcos, and unincorporated portions of San Diego County; and to the west by the Pacific Ocean (refer to Figure 2-1, *Regional Location Map*). The SP area is generally located south of Buena Vista Creek and State Route 78 (SR-78), west of El Camino Real, north of Marron Road, and east of an unnamed private loop road that is the northerly extension of Monroe Street (refer to Figure 2-2, *Site Vicinity Map*, and Figure 2-3, *Aerial Photograph*). A 2.9-acre portion of the SP area is located across Marron Road from the rest of the SP area, at the southwest corner of the intersection of El Camino Real and Marron Road. Primary regional access to the SP area is provided by Interstate 5 (I-5) and SR-78. The SP area is approximately 500 feet south of SR-78, which runs generally east-west, and approximately 0.75 mile east of I-5, which runs north-south. SR-78 connects with the Escondido Freeway (I-15), which runs generally north-south, in an alignment located approximately 15 miles east of the SP area. Sub-regional and local access to the SP area is provided by El Camino Real; Marron Road, which becomes Jefferson Street west of the SP area; Monroe Street, located southwest of the SP area; and Carlsbad Village Drive, which intersects El Camino Real south of the SP area (refer to Figures 2-2 and 2-3).

The SP area is relatively flat, with elevations ranging from approximately 25 feet above mean sea level (AMSL) on the north side of the mall near Buena Vista Creek, to a high of approximately 40 feet AMSL in the southern portion of the SP area along Marron Road. The SP area generally slopes down gently to the west-northwest, and the shopping center is divided into an upper level (south side) and a lower level (north side). The SP area encompasses approximately 77.5 of Westfield Carlsbad Shopping Center's 96.7 acres, including the entire shopping center and the majority of the center's surface parking areas. The SP area is smaller than the total acreage of the Westfield Carlsbad center because approximately 14.05 acres of the Westfield Carlsbad property outside the SP area (to the north) is within the City of Oceanside and the floodplain of Buena Vista Creek.



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Regional Location Map

WESTFIELD CARLSBAD

Figure 2-1





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Aerial Photograph

WESTFIELD CARLSBAD

Figure 2-3

The SP area is crossed by the portion of Marron Road between Monroe Street and El Camino Real along the southern edge of the shopping center; and a portion of the unnamed loop road along the west and north edges of the shopping center. Seven Westfield Carlsbad parcels comprising the 2.9-acre portion of the SP area are located south of Marron Road and the main mall, at the southwest corner of the Marron Road and El Camino Real intersection. As shown on Figure 2-3, three out-buildings associated with Westfield Carlsbad occupy three of the seven parcels south of Marron Road. A fourth parcel south of Marron Road is occupied by a small surface parking lot, while the remaining three smaller Westfield parcels south of Marron Road are vacant (refer to Figure 2-3).

To the north, the SP area is adjacent to additional surface parking for the shopping center, a sewer pump station, and Buena Vista Creek. Beyond Buena Vista Creek and north of SR-78 are a commercial shopping center and single- and multi-family residential communities. A steep, vegetated hillside begins immediately south of the SP area and rises to an elevated terrace of several hundred feet above the shopping center. The land immediately to the south has been developed with multi-family residential land uses, while the Hosp Grove trail system and recreational open space area is southwest of the SP area. To the west is a comparatively smaller commercial shopping center, and additional trails and open space associated with Hosp Grove are located to the southwest. East of the SP area and El Camino Real are two commercial shopping centers, beyond which multi-family residential communities and a golf center and driving range have been developed atop a gradually ascending hillside.

The SP area is located within the Coastal Geomorphic Province, which occupies the western portion of San Diego County corresponding to a region of sedimentary surface rocks. The dominant relief of this province is a series of marine terraces known as mesas. Approximately 25 different soil series are present within the City of Carlsbad, including sandy, cobbly, loamy, and clayey types, and soils associated with gabbro parent material and Santiago Peak metavolcanic formations (Carlsbad 1994c). The SP area is underlain predominantly by compacted fill soils, alluvial deposits, and the Santiago Formation, situated on reclaimed marshland in the Buena Vista lagoon area, relatively close to the eastern boundary of the lagoon (refer to Figure 2-2). The elevation of the lagoon prior to site development ranged from approximately 5 to 10 feet AMSL; however, grading associated with the original shopping center construction resulted in the placement of compacted fill across the lagoon area to achieve pad elevations ranging between approximately 25 and 40 feet AMSL.

As is common in most of southern California, the SP area is located within a seismically active region. No active fault is known to exist on or within the immediate vicinity of the SP area, and

the site is not located within an Earthquake Fault Zone. The nearest active faults are the Newport-Inglewood fault, located approximately 5.8 miles west of the SP area (offshore), and the Rose Canyon Fault Zone, approximately 6.2 miles southwest of the SP area.

The SP area is located in a coastal area of moderate temperatures and comfortable humidity. Precipitation is limited to a few storms during the winter season. The climate of San Diego County is characterized by long, dry summers and mild, wet winters. The predominant wind direction in the vicinity of the project is from the west. The annual average temperature in the SP area is approximately 53 degrees Fahrenheit (°F) during the winter and approximately 68°F during the summer. Total precipitation in the SP area averages approximately 10.5 inches annually which, as noted, occurs predominantly during the winter and relatively infrequently during the summer.

The SP area is located within the San Diego Air Basin (SDAB). As described further in Section 4.2, *Air Quality*, the SDAB as a nonattainment area for federal and state air quality standards for ozone, and state standards for particulate matter less than 10 microns in diameter (PM₁₀) and 2.5 microns in diameter (PM_{2.5}). Air pollutants transported into the SDAB from the adjacent South Coast Air Basin (Los Angeles, San Bernardino, Orange, and Riverside counties) substantially contribute to the nonattainment conditions in the SDAB. High air pollution levels in coastal communities of San Diego often occur when polluted air from the South Coast Air Basin, particularly Los Angeles, travels southwest over the ocean at night, and is brought onshore into San Diego by the sea breeze during the day. Within the vicinity of the SP area, motor vehicles are the major generators of air pollutant emissions. SR-78, El Camino Real, and Marron Road all carry local and through traffic, which is a source of exhaust pollutants in the area. Currently, the project site generates stationary and mobile source emissions associated with vehicular traffic, energy use, potable water transport and consumption, landscaping, maintenance, consumer products transportation and use, and architectural coatings use.

The SP area is located within the Carlsbad Hydrologic Unit (HU). The entire HU is a triangular area of approximately 210 square miles, extending from Lake Wohlford on the east to the Pacific Ocean on the west, and from the city of Vista on the north to Cardiff-by-the-Sea on the south. The Carlsbad HU includes the cities of Oceanside, Carlsbad, Encinitas, Vista, and Escondido. The area is drained by Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks, and the Carlsbad HU contains three major coastal lagoons: Buena Vista, Agua Hedionda, and Batiquitos. The SP area is located within the Buena Vista Creek Hydrologic Area.

No natural communities are present within the SP area, although Buena Vista Creek is located immediately north of the site. Some landscaped areas occur throughout the SP area, which are limited to ornamental groundcover, shrubs, and sporadic trees. The SP area is located within the planning area of the Habitat Management Plan for Natural Communities in the City of Carlsbad (HMP) (City of Carlsbad 2004c), although it is not identified within the HMP's core habitat area. In addition, the SP area and immediate vicinity are not designated as Hardline Preserve or Standards Areas in the HMP.